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ABSTRACT

These guidelines and proposed program for Texas children with attention deficit hyperactivity disorder (ADHD) were developed by a legislatively mandated multidisciplinary committee. An executive summary notes that 2 to 5 percent of elementary school children meet the diagnostic criteria for ADHD and recommends strategies including: instruction that modifies and clarifies student assignments and restructures the educational environment; consultation services for classroom teachers; professional support for children with behavioral and emotional difficulties; ongoing evaluation of the child's educational needs; services to help the child's family meet the child's needs; and access to other support programs for which the child may be eligible. Recommendations for a statewide program include: establishing a state level coordinator for ADHD programs; supplementing each education service center with a professional staff member to provide local school districts with technical assistance; establishing a district level ADHD facilitator; 6 hours of training for teachers in identification and instructional strategies; and expansion of support services. Appendices include two papers: "Research Paper: Attention Deficit Hyperactivity Disorder"; and "Medication Management of Attention Deficit Hyperactivity Disorder" (Carol Daniel) and a memorandum from the U.S. Department of Education clarifying policy on serving this population. (76 references) (DB)

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ASSESSING AND SERVING CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

A Report to the Seventy-Second Texas Legislature and A Memorandum from the United States Department of Education

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A Report to the Seventy-Second Texas Legislature
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NOTICE

A federal statute, the Rehabilitation Act of 1973 as amended, prohibits any agency receiving federal funds from discriminating against otherwise qualified individuals with handicaps solely by reason of the handicap.

School districts should be aware that some children with attention deficit hyperactivity disorder may be considered handicapped within the definitions contained in Section 504 of the act and its implementing regulations. Procedures contained in 34 Code of Federal Regulations Part 104 must be followed.

In particular, school districts must provide a free appropriate public education for qualified students with handicaps. The district must convene a knowledgeable multidisciplinary team to examine evaluation data and make identification, evaluation or educational placement of such students, the district must provide a system of procedural safeguards that includes notice, an opportunity for parents or guardians to examine relevant records, an impartial hearing, and a review process.

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January 1991

The Honorable Ann W. Richards, Governor of Texas
The Honorable Bob Bullock, Lieutenant Governor of Texas
The Honorable Gibson D. Lewis, Speaker of the House
Members of the 72nd Legislature

Senate Bill 1668, Section 9, required the Central Education Agency to establish a multidisciplinary committee to develop proposed guidelines for school districts to identify and test children with attention deficit hyperactivity disorder. The committee also was to develop a proposed program for providing appropriate services to those children and their families. The guidelines were to include a proposal for necessary teacher training as well.

As per Senate Bill 1668 the State Board of Education appointed a multidisciplinary committee that included a child psychologist, a school psychologist, a pediatrician specializing in attention deficit hyperactivity disorder, a member of the Texas Medical Association, an attention deficit hyperactivity disorder research specialist, and a parent of a child with the disorder. The committee prepared a report which includes the proposed guidelines, the proposed program, and an estimate of the costs of implementing the guidelines.

The report makes a series of recommendations for implementing a statewide program to address the needs of children with attention deficit hyperactivity disorder. The Board and the Commissioner of Education have some concerns about some of the recommendations for the following reasons:

- there is much more disagreement about the definition and treatment of attention deficit hyperactivity disorder within the medical and educational community at the national level than the report indicates. The extent of that disagreement is reflected in the recent decision by the U.S. Congress not to include attention deficit hyperactivity disorder in the Education of the Handicapped Act. Instead, Congress has instructed that a study be conducted concerning the definition of attention deficit hyperactivity disorder, optional treatment and educational methods, and the quality of current educational services provided to students with this disability;

- the report recommends that personnel be added at the state, regional, and district levels with responsibility specifically for students with attention deficit hyperactivity disorder. By defining the types of personnel who must be hired by districts as well as stipulating how they are to be used, the recommendation takes away needed flexibility from schools. The message given by the passage of Senate Bill 1 was to increase flexibility for districts, not to dictate the types and use of personnel; and

- the cost of the recommendation appears unrealistic at this time, given the financial situation of this state. The state's priority in public education must be equity.

While the Board acknowledges the high cost of the implementation of these guidelines, this recognition does not reflect on the content of the report, which is well-researched and offers numerous options for teachers of children with attention deficit hyperactivity disorder.

In particular, the Board would like to call attention to the section of the report entitled "Appropriate Services for Students with Attention Deficit Hyperactivity Disorder." This section outlines many intervention strategies which have been shown to be effective with students with attention deficit hyperactivity disorder. These interventions can be easily adapted by classroom teachers with only modest modifications and without financial burden.

An additional measure that has little or no associated costs would be the integration of an awareness of attention deficit hyperactivity disorder into existing in-service training at the district-level. Awareness training is a simple, but effective way of informing teachers about a complex and often misunderstood disorder.

Beyond the preparation of this report, the Agency will continue to respond to the informational needs of educators about attention deficit hyperactivity disorder through dissemination of this report and through referral to appropriate sources.

Respectfully submitted,

Carolyn Crawford

Carolyn Honea Crawford, Chairman
State Board of Education

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EXECUTIVE SUMMARY

> SB 1668. Section 9. The Central Education Agency shall establish a multi-disciplinary committee to develop proposed guidelines for school districts for identifying and testing children with attention deficit disorder and to develop a proposed program for providing appropriate services to those children and their families. The guidelines shall include proposed guidelines for necessary teacher training.

Senate Bill 1668 of the 71st Legislature established an advisory committee to identify appropriate services for students with Attention Deficit Hyperactivity Disorder (ADHD), a disorder characterized by inattention, impulsivity and hyperactivity. The Texas ADHD Advisory Committee was charged with establishing guidelines for school personnel to address identification and assessment, appropriate services, teacher training, and parent services issues related to the needs of students with ADHD.

Two to five percent of elementary school children meet the diagnostic criteria for ADHD. Behaviors that meet these standards include a short attention span, impulsivity, restlessness, and sometimes aggression and hyperactivity. ADHD appears early in childhood and continues to affect one-third of this population throughout adulthood.

Identification and diagnosis of ADHD is complicated by the co-existence of other disorders. Each evaluation must focus on how the child functions in different settings, with particular attention paid to impulsive or hyperactive behaviors. Since the classroom presents the child with both social and stressful interactions, it is an important setting for ADHD identification, assessment and, where necessary, intervention.

School-based intervention strategies must be flexible enough to tailor assistance to the unique needs of the child. Although not exhaustive, the following services are the essential core of effective school-based intervention. Recommended strategies include:

- specific instructional strategies that modify and clarify student assignments and restructure the educational environment;
- consultation services for classroom teachers who are implementing interventions;

- the availability of professional support personnel to help the child with behavioral and emotional difficulties;
- ongoing evaluation of the child's specific educational needs;
- services to help the child's family members meet the child's needs;
- access to other support programs, such as special education, compensatory education or programs for at-risk students, for which the child may be eligible.

School-based interventions rely on parental support and understanding. Successful parent services programs incorporate parental input and help them better understand their child's unique needs.

Based on findings on the prevalence of ADHD and its diverse intervention requirements, the advisory committee recommends that a statewide program be implemented to meet the needs of students with this disorder. Specifically the recommendations include:

- establishing a state-level coordinator for ADHD programs, training and materials to be based at the Texas Education Agency. The coordinator will organize an annual conference on ADHD.
- supplementing each education service center with a part-time professional staff member to offer technical assistance to local school districts on ADHD diagnosis and intervention.
- establishing a district-level ADHD facilitator to serve as a consultant to personnel and to coordinate the multi-disciplinary team that diagnoses and develops intervention plans for students with ADHD.
- training teachers at the elementary and secondary level to identify students with ADHD and to develop instructional strategies for this population. Under this proposal, teachers would receive six hours of training.
- expanding support services of counselors, educational diagnosticians, psychologists, speech therapists and social workers in school districts.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD), formerly known as Attention Deficit Disorder[1] (ADD), is one of the most prevalent childhood disorders reported by schools and mental health clinics. It is also one of the most researched childhood disorders in the United States. ADHD can have a significant impact on a child's development, family, classroom, and community.

While ADHD may accompany other behavioral disorders, learning disabilities, and emotional disorders, research over the past ten years has established ADHD as a syndrome in its own right. Longitudinal research also suggests that manifestations of ADHD follow the child into adolescence and adulthood, with a portion of the population becoming delinquent and antisocial. These children are therefore at risk for future adjustment, education, and employment problems.

Inattention, impulsivity and hyperactivity characterize ADHD.

While children with ADHD vary in the types and severity of their symptoms, the core features of the disorder fall into the three categories of inattention, impulsivity, and hyperactivity (DSM III-R, 1987). Associated features may include oppositional behavior, conduct disorders, emotional difficulties, and cognitive and learning disabilities. The syndrome is also a "transactional" disorder in that the child's behavior frequently elicits negative reactions from his or her peers. Over time, such social ostracism can complicate parent-child and teacher-child relationships and may hinder educational achievement.

Children with ADHD can be disruptive in the classroom to the point of detracting from their own and others' learning. Those who are not hyperactive but who have severe difficulties with attention span and organization are often underachieving and are accused of laziness or lack of motivation by frustrated teachers and parents unaware of ADHD symptoms and the child's inability to control them. With time, such adverse experiences can seriously affect the child's self-esteem and competency.

[1] *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III), 1980.

In spite of these well-documented and persistent difficulties, children diagnosed solely with ADHD are presently not eligible for special education services under Public Law 94-142. While some children with ADHD may meet the criteria for other handicapping conditions such as learning disabled or emotionally disturbed and thus qualify for special services, many do not.

Many students with ADHD do not qualify for special education services

Some children with ADHD are eligible for special education services because their school district liberally interprets the definitions and regulations (e.g., interpreting "minimal brain dysfunction" to include ADHD or interpreting "alertness" to qualify under the other health impaired category).

Often, however, the services provided through special education are not appropriate or sufficient for children with ADHD. For instance, many students with ADHD do not have learning disabilities or emotional disturbances. Interventions targeted for these conditions may not be suitable for children with ADHD who exhibit qualitatively different behaviors. Clearly, the need is urgent for schools in Texas to address the specific and unique needs of children with ADHD.

GENESIS OF REPORT

Senate Bill 1668 of the 71st Legislature established an ADHD Advisory Committee to develop, in consultation with Texas Education Agency staff, guidelines for school personnel to address identification and assessment, appropriate services, teacher training, and parent services issues related to children with ADHD.

> SB 1668. Section 9. The Central Education Agency shall establish a multidisciplinary committee to develop proposed guidelines for school districts for identifying and testing children with attention deficit disorder and to develop a proposed program for providing appropriate services to those children and their families. The guidelines shall include proposed guidelines for necessary teacher training. The agency shall report the proposed guidelines, the proposed program, and an estimate of the costs of implementing the guidelines and program to the 72nd Legislature not later than February 1, 1991.

The committee was comprised of a wide variety of specialists including child psychologists, school psychologists, pediatricians specializing in ADHD, a member of the Texas Medical Association, an ADHD research specialist, and a parent of a child with the disorder. The committee first convened in January 1990 and met on four subsequent occasions to develop this document.

Before outlining the specific recommended guidelines, an introduction to ADHD is provided in the following section, presenting information about the functioning and needs of children with ADHD. The section includes a brief historical perspective, information about prevalence, causation, diagnostic criteria, clinical description, and developmental course of ADHD.

HISTORICAL PERSPECTIVE

The evolution of the definition of ADHD over the century reflects heightened understanding of the disorder as well as an attempt by professionals to formulate a more precise definition. These discussions tended to center on, at different points in time, the areas of brain dysfunction and hyperactivity.

It was believed in the 1930s and 1940s that ADHD stemmed from some form of "minimal brain dysfunction" (MBD). Current thinking does not recognize ADHD as a form of minimal brain dysfunction, although many studies acknowledge that there may be neurological differences between children diagnosed as ADHD and other children. In fact, the general MBD category itself has been rejected by the profession because current classification and diagnostic systems emphasize observable criteria for disorders.

Researchers have identified the principal features related to ADHD: restlessness, impulsivity, distractibility, a short attention span, aggression, and hyperactivity. These symptoms comprise the three constructs of *hyperactivity*, *impulsivity*, and *inattention* described in the 1987 DSM-III-R. The focus on attention deficits led to re-naming the disorder "Attention Deficit Disorder" instead of the more generic "Hyperactivity" in 1980. Ongoing research and conceptualization of the disorder will be reflected in the forthcoming DSM-IV. As more is learned about ADHD and its dynamics, the definition of this disorder will likely be modified based on these new understandings.

Two to five percent of elementary school children may meet the criteria for ADHD.

PREVALENCE

Research estimates that two to five percent of elementary school children meet the diagnostic criteria for ADHD (Campbell & Werry, 1986). Applying these estimates to Texas would mean that 38,000 to 95,000 elementary school children may meet the ADHD criteria.

If these estimates are accurate, approximately one child in every classroom in Texas has ADHD symptoms. ADHD shows a gender difference, appearing in three times as many boys as girls. Research findings on prevalence differences among socioeconomic groups and among secondary students has not been conclusive.

CAUSES OF ADHD

A number of biological, genetic, and environmental factors have been linked to the development of ADHD. Genetic influences seem to be important, with some research suggesting that disorders characterized by deficits in impulse control are transmitted across generations. Some evidence suggests an association with prenatal factors such as the mother's health, drug and alcohol abuse, fetal development and birth events, especially oxygen deprivation. Other studies fault the combination of genetic and biological factors in the development of brain chemistry abnormalities. While the link between ADHD and environmental factors such as family stress and poor parenting has been noted, these factors are generally not considered as causal. However, they can significantly affect the course and severity of the disorder.

Biological and genetic factors appear more important to the development of ADHD than do environmental factors.

CLINICAL DESCRIPTION OF ADHD

The diagnosis of ADHD is based on consideration of the list of fourteen symptoms below taken from DSM-III-R. The disturbance must have been apparent for at least six months in addition to which eight of the following 14 symptoms must have been present at greater frequencies than one would expect of a child of the same mental age. The items are listed in descending order of discriminating power based on data from a national field trial of the DSM-III-R criteria for Disruptive Behavior Disorders.

1. often fidgets with hands or feet or squirms in seat
2. has difficulty remaining seated when required to do so
3. is easily distracted by extraneous stimuli
4. has difficulty waiting turn in games or group situations
5. often blurts out answers to questions before they have been completed

6. has difficulty following through on instructions from others (not due to oppositional behavior or failure to comprehend), e.g., fails to finish chores
7. has difficulty sustaining attention in tasks or play activities
8. often shifts from one uncompleted activity to another
9. has difficulty playing quietly
10. often talks excessively
11. often interrupts or intrudes on others, e.g., butts into other children's games
12. often does not seem to listen to what is being said to him or her
13. often loses things necessary for tasks or activities at school or at home, e.g., toys, pencils, books, assignments
14. often engages in physically dangerous activities without considering possible consequences (not for the purpose of thrill-seeking), e.g., runs into street without looking

A diagnosis should be based on multiple sources of information from a variety of contexts.

Diagnosis requires the presence of symptoms for at least six months in order to exclude children who may be reacting to stressful events such as parental divorce, death in the family or abuse. Inadequate, disorganized, and chaotic environments, including the classroom, may also exacerbate the presence of these behaviors. The behavior of a child with ADHD is not consistent across environment or task. For example, a child with ADHD may act differently from other children in a large group situation as compared to a small group or one-on-one situation. These considerations highlight the importance of a diagnosis based on multiple sources of information from multiple contexts.

Do children with ADHD necessarily have deficits in cognitive functioning? No clear evidence to support this is available. In fact, many children with ADHD perform well on individual intelligence tests while performing poorly in school. Inferior classroom performance is partly a result of poor organization and ineffective problem-solving strategies arising out of attentional difficulties and poor impulse control. Sadly, children with ADHD experience frequent failure, leading to lower self-esteem and less motivation to perform well academically.

Children with ADHD function much better when tangible and positive reinforcement is consistently given (above and beyond what would be given to a child without ADHD) and is clearly related to a behavioral expectation. Performance deteriorates quickly when this is not done. Partial or gradual withdrawal of reinforcement is *not* effective for children with ADHD.

Children with ADHD are slow to develop necessary social skills.

Many children with ADHD are awkward in interpersonal situations because they are impulsive and do not pick up on social cues from others. This clumsiness interferes with communication and compliance in the home and with sharing and turn-taking with playmates. Rejection by their peers and teachers is frequent, resulting in even fewer opportunities to develop effective social skills.

DEVELOPMENTAL COURSE

ADHD is characterized by onset in early childhood or infancy. Parents are generally the first to sense the disorder before the child enters school. The teacher, however, may be the person who makes the first link between the child's impulsivity and ADHD.

It is a common misconception that children outgrow ADHD by puberty. While it is true that the majority function relatively well by adolescence, there is evidence that the disorder persists into adulthood for up to 30 percent of those with childhood ADHD. Manifestations of ADHD in adults include: impulsivity, inability to reflect, explosive temper, poor task completion and low stress tolerance with over-reactivity. Notably, the criteria for an adult diagnosis are stricter than for a childhood diagnosis, requiring, for instance, that the condition have existed *before* adulthood and was not in response to a specific situation or event.

IDENTIFICATION AND ASSESSMENT

Identifying and diagnosing Attention Deficit Hyperactivity Disorder is not a simple matter, especially since other disorders may be present. Symptoms of ADHD are generally pervasive over time although they may not manifest themselves in every situation. Because of the complexity of the disorder and its potential effects on all aspects of a child's development, an assessment for ADHD should be cross-situational and multidimensional. Evaluators should ask: "How does the child function in different settings and in different areas of development?" Assessing all three dimensions of ADHD (attention, impulsivity, and hyperactivity) is also key. To be comprehensive, the assessment must of course involve parents and teachers as well as a multidisciplinary team whose members are educated about child development and psychopathology in general and ADHD in particular.

How does the child function in different settings and in different areas of development?

A full assessment of children suspected of having ADHD and a determination of their needs should be guided by the following general questions:

1. Are psychiatric, medical, neurological, or other symptoms present?
2. What factors may have caused or may be perpetuating the problem?
3. What strengths does the child have to facilitate normal development?

Since the classroom is the most likely setting for ADHD manifestations, the school should play an important role in identification, assessment and intervention. A school-based assessment can help ensure that strategies are developed to meet the child's educational needs.

Specific to the educational setting, the following questions should also be asked:[2]

[2]The questions are adapted from *Guidelines for Assessment*, Texas Education Agency, Division of Special Education Programs.

1. Does the child have a disability in emotional, social, or behavioral functioning which adversely affects learning?
2. Are there family or home factors which adversely affect the child's learning?
3. Does the child have a disability in language functioning?
4. Does the child have a disability in intellectual and adaptive behavior functioning? Are there learning disabilities or other educational difficulties present?

The following steps will be helpful in answering these questions in a full assessment for ADHD:

1. A pediatric physical and developmental neurological examination to rule out the presence of factors other than ADHD. The pediatric specialty is recommended so that the medical exam goes beyond stating only that the child is "healthy."
2. A medical, developmental and social history, including family history and current family functioning.
3. An assessment of the child's emotional, social and behavioral functioning in home, school and community settings, an inquiry into the presence of any past difficulties or recent trauma.
4. An appraisal of current language and intellectual functioning.
5. An assessment of current academic functioning and history. This should also include an assessment of the classroom environment.

ASSESSMENT TECHNIQUES AND MEASURES

The techniques and measures that follow will assist in gathering the information necessary for a full assessment of the possibility of ADHD. While not a comprehensive listing, it is nonetheless intended to guide evaluators in diagnosing ADHD.

Interviews

An interview with parents is important for obtaining a complete developmental history, health history, information about general temperament, social relationships, and emotional and behavioral functioning. Evaluators should also get a sense of the home and

family environment and how the child interacts with parents and siblings. These subjective observations may well influence the type of treatment recommended for the child. Structured interviews with both the child's teacher and the child are also helpful. During these interviews, the evaluator should integrate questions relating to the DSM-III-R criteria listed above. Structured interviews are also commercially available, such as the Child Assessment Schedule, Diagnostic Interview for Children, the Family Environment Scale, and the Family Assessment Measure, though the value of a tailor-made interview should be considered.

Observe the child in natural settings at different times.

Observations

The most direct indicator of the presence of ADHD symptoms is an observation of the child in natural settings, such as the home and school, especially by a professional with training in ADHD. Needless to say, teachers and parents are valuable observers. When observations are planned, the evaluator should take into account different time periods, alternate activities (structured-unstructured), and diverse settings to produce as complete a picture of the child as possible.

Rating Scales

Rating scales are often used as supplementary tools in an ADHD assessment. They are usually given to parents and teachers to complement other measures such as observation and interviews. Rating scales consist of statements about behavior such as "Has trouble sitting still" while the rater uses a point scale to denote applicability. While parents may have more contexts in which to judge a child, they may be less objective than teachers who see a built-in norm group on a daily basis. Specific rating scales include the ADHD Comprehensive Teacher Rating Scale, the Child Behavior Checklist (teacher, parent, and observer forms), and the Conners Parent and Teacher Rating Scales.

Individual Assessment

Many assessment measures used in a typical psychoeducational evaluation can also assist in assessing ADHD. These include intelligence tests such as the Wechsler scales, the Kaufman Assessment Battery for Children, and the Stanford-Binet Intelligence Scale, Fourth Edition. A well-trained clinician can gain valuable informa-

tion from these measures by gauging the child's impulse control, levels of frustration, attention and concentration and by observing the child's approach to problem-solving. Caution is recommended when reading the results from these tests since peripheral circumstances such as a child's anxiety level or hearing problems may impair functioning.

ASSESSMENT PROCESS

Although an assessment of ADHD at age three or four may be more difficult, a diagnosis at this age affords the preschooler the opportunity for appropriate intervention before entering school. It is not uncommon for some children to be identified by private or community agencies before reaching kindergarten age. It is more common, though, for the disorder to be identified when children attempt to meet the increasing educational and social demands of higher grades. For these reasons, a process for appropriate identification and assessment should be in place at the elementary school level.

A process for identification and assessment should be in place at the elementary school level.

School districts are currently served by multidisciplinary assessment teams who should be available for ADHD assessments. One member of this multidisciplinary team should be designated as a facilitator for the ADHD identification and assessment process. School districts also have an overall regular education referral or screening system (19 TAC 89.232) which can be used for children suspected of having ADHD.

The ADHD facilitator should work closely with this screening committee to review ADHD referrals.

The in-school referral and assessment process for ADHD should include several steps. A referral should be made to the ADHD facilitator containing demographic details, descriptions of particular behaviors, and an explanation of intervention attempts. A screening process is recommended before full assessment because some children exhibiting ADHD symptoms may be doing so for reasons other than the disorder. This process typically includes: a parent interview; behavioral observation in structured and unstructured settings; administration of rating scales; and a review of academic performance.

Following this initial review, information should be compiled by the ADHD facilitator and presented to the screening team. At this point, either approaches are suggested to use on a trial basis or a referral is made for a comprehensive individual assessment. This assessment may be performed by the district or outside of the school. In the latter case, relevant school information should be sent along with the referral.

Factors such as intellectual deficits, learning disabilities, and emotional disturbances can cloud a true ADHD diagnosis.

A comprehensive individual assessment is recommended when the screening team agrees that there is a strong possibility of the presence of ADHD, but feels that additional information is needed to confirm the diagnosis. Further assessment may also establish the presence of other factors such as intellectual deficits, learning disabilities, or emotional disturbance. This assessment builds on the screening evaluation by adding the following components:

- a pediatric evaluation;
- an assessment of intellectual and language functioning;
- a full assessment of academic functioning;
- a full assessment of emotional, social, and behavioral functioning.

A final identification of ADHD in a child is made under the direction of a licensed medical practitioner or licensed psychologist who is currently knowledgeable and experienced with developmental behavior disorders in general and ADHD in particular.

After a diagnosis of ADHD is confirmed, representatives of the assessment team and the ADHD facilitator should discuss appropriate interventions with the parents (specific interventions are amplified in the Appropriate Services section). If a child identified as having ADHD has other handicapping conditions, he or she will be eligible for existing special education services and an individual education plan will be developed. If the child is not eligible for special education services, an intervention plan for the child with ADHD must still be formulated. This plan must also include monitoring and evaluation of interventions and an annual review. In either case, the specific attentional deficits of the child with ADHD must be addressed.

POST-ASSESSMENT ISSUES

When a child who has already been diagnosed as ADHD enters or transfers into a school, it should be determined whether an intervention plan was in place at the child's previous school. If so, the appropriate personnel should review the plan to ensure applicability to the child's present circumstances and the resources available at the new school. When an intervention plan for the child is being implemented through a private or community agency, the school, with parental permission, should actively communicate and be in contact with that agency.

SERVICES FOR STUDENTS WITH ADHD

A successful intervention plan involves the school and parents working together.

Teachers of children with ADHD must be sensitive to the individual needs of these students and tailor their assistance accordingly. Moreover, a successful intervention plan involves both school personnel and parents working together to meet the child's needs. Six general sets of services are identified below from which specific interventions can be developed.

Services for children with ADHD are multi-faceted and may include:

- specific instructional strategies and modifications implemented by teachers;
- consultation services to classroom teachers;
- direct services of professional support personnel to address the behavioral or emotional difficulties of students with ADHD who require therapy;
- support programs for which the child may be eligible such as special education, compensatory education, and programs for at-risk students. A child with ADHD who does not qualify for special education services may still be eligible for other programs;
- ongoing evaluation of the child's specific intervention needs, and modification of services;
- support services to the child's family with special attention to helping parents meet their child's needs, to include consultation, referral, and access to informational resources.

The above list of services is not exhaustive but represents essential components of an effective school-based intervention. Many children with ADHD also benefit from medication (see Appendix B for a discussion of medication intervention) while others benefit from community day treatment programs outside of school. When these outside interventions are being used, the school has an important role in communicating with other professionals and agencies involved with the child.

Classroom interventions can be easily adapted for use by teachers.

CLASSROOM INTERVENTIONS

School is where children with ADHD experience their most serious difficulties. Modifications of instructional approach are often required for these children to succeed. Classroom interventions typically include instructional strategies, environmental structuring, and behavior management. Many of these interventions can be adapted for use by classroom teachers.

Materials and guides are available to help implement effective classroom interventions for students with ADHD. The following guidelines are taken from Cobb (1987), Dupaul (1989), Goldstein and Goldstein (1987), Hallahan et. al., (1982), Kendall and Braswell (1985), Parker (1988), and Williams (1989).

Instructional Strategies

- Teach the child at his or her appropriate instructional level rather than frustration level. Children with ADHD are often baffled by too many demands. The resulting anxiety can lead to a diminished self-esteem.
- Teach concepts in smaller units when possible, reviewing frequently. Avoid repetitive material and find alternate ways to present a concept.
- Give the child instructions one at a time, and have him or her repeat them before starting work. Personally help the child get started on a task after the group has been given directions. Check periodically to see that the child continues to understand and is following directions. Make frequent unobtrusive contact with the child, touching him or her lightly or speaking his or her name gently.
- Use learning aids such as computers, tape recorders and calculators. Interactive computer programs can be especially useful in maintaining the child's interest and attention.
- Whenever possible, experiment with a cooperative learning approach and other grouping arrangements. These approaches can foster better communication and social skills of children with ADHD.
- Provide the child with direct intervention and/or modeling for improved organization and focus.

Assignment Modification

- Break assignments into smaller units, and check completed work frequently. Encourage accuracy and completion and discourage impulsive and hasty work habits. Adapt work sheets so that less material is on each page. Being faced with a full page of material can be frustrating for a child with ADHD.
- Give the child extra time to work on assignments. Modify written assignments by asking the child to write a detailed outline about a subject rather than an extensive essay. Allow older children to complete assignments with a word processor rather than by hand.
- Alternate types of assignments to help maintain attention.

Evaluation and Testing

- Give regular and specific feedback to the child about his or her work. Focus on success, concept learning, and application.
- Modify testing to determine the child's mastery of content. Allow the child to demonstrate knowledge in ways other than by written tests such as discussion, presentations, and special projects.
- Since children with ADHD may not do well on standardized timed group tests, results of such testing should be supplemented with other measures.

ENVIRONMENTAL STRUCTURING

- Place the child with ADHD in the least distracting location in the classroom. The child should also sit near students who will model on-task behavior and not reinforce inappropriate conduct.
- Furnish the child with a place to work away from the group when independent seatwork is required. Since many children with ADHD are highly self-distracted, they must be monitored closely.
- Provide as much structure, predictability, and regularity as possible, and set strong, consistent limits.
- Allow opportunities for the child to move around the classroom.

BEHAVIOR MANAGEMENT AND COGNITIVE-BEHAVIORAL APPROACHES

- Use positive and negative consequences together, and make sure the child clearly understands what they are and upon what behavior they depend.
- Provide prompt and frequent positive reinforcement for desired behavior, including on-task behavior.
- For inappropriate behavior, use mild reprimands and logical consequences, such as time-out from the group.
- Some children with ADHD respond well to a "response-cost" approach to behavior management. That is, a child starts a given time period with a set number of points and keeps that number by complying with task or behavioral expectations. Points are taken away for infractions.
- Many children with ADHD respond well to a "daily goal-card" system. Parents, teacher, and the child develop behaviors or tasks that the child needs to improve.
- Pay particular attention to the strengths and potential leadership qualities of the child with ADHD. Point out these attributes to the child, and provide opportunities to apply them in interactions with other students.
- Teach and encourage the child to self-monitor assignments. Have the child use positive self-talk and monitor activity and progress at set times. Help the child to "stop, look, and think" by having him or her define a task, specify the steps, and evaluate possible outcomes.
- Extend social-skills training to the classroom by reinforcing what the child has learned in counseling sessions. Social skills deficits can be as debilitating to the child's progress as academic deficiencies. Several social skills instructional programs for the classroom are commercially available.
- Observe the child's behavior when medication is used. Note changes or side effects, and report these to the child's physician or parent. Avoid embarrassing comments about the medication and handle dispensing times discreetly and sensitively. Do not give too much credit or blame to the medication for the child's behavior.

CONSULTATION SERVICES FOR TEACHERS

Classroom teachers may need help in planning and implementing an intervention program for a specific child. Consultation must be available to the teacher from appropriate support personnel such as counselors, psychologists, social workers, school nurses, administrators, and speech/language pathologists. Consultation may take any of various forms, including giving advice about assessment or providing interim interventions before assessment takes place.

Consultants who provide classroom intervention strategies can be most helpful when techniques are modeled in the classroom. They can also help teachers implement mentor programs, peer tutoring programs, and social skills programs.

Classroom teachers need consultation on intervention techniques for children with ADHD.

Finally, consultants can play a role in researching and acquiring appropriate technical aids for teaching children with ADHD. These can include specific computer programs which help to maintain attention, in addition to behavior management aids such as self-monitoring devices.

COUNSELING

Some children with ADHD may benefit from direct counseling services to supplement classroom-based interventions. The counseling must be applicable to settings pertinent to the child. For example, the child working on problem-solving or social skills should be able to practice in the classroom.

Counselors may also make referrals for services not furnished by the school, help communicate with parents and outside agencies, and act as a liaison between parents and teachers.

SUMMARY

The needs of children with ADHD are unique, and services to address those needs must be adapted to each child. This section has presented a broad outline of the types of services that are helpful for children with ADHD. While many of the strategies discussed in this section are likely to benefit all children, they are highlighted here in an effort to heighten awareness of the needs of children with

Teaching strategies beneficial to children with ADHD are helpful to all children.

ADHD and suggest that teachers must go above and beyond normal classroom interventions.

While many children with ADHD require the services of professionals and agencies outside of school, some of their needs can be met by school- or district-based services chosen from the categories outlined above. Careful planning, coordination, and implementation will best assure the child's optimum development and access to an appropriate education.

PARENT SERVICES

The family with a child with ADHD has specific needs which should be addressed by joint planning between the professional and educational community. Not all of these needs can be met through school-based parent services programs, but the role of education professionals in their implementation is nonetheless vital. These concerns indicate the need for professionals, including school personnel, to provide empathy and support to the parents of the child with ADHD. An understanding by professionals of the parents' feelings and concerns is an essential element in the treatment of a child with ADHD.

Existing school programs can be easily modified to accommodate the needs of parents.

SCHOOL-BASED PARENT SERVICES PROGRAM: A PROPOSAL

A school-based comprehensive parent services program is one of the best ways to incorporate the needs and concerns of parents. Schools with existing parent programs may find it easy to modify them to incorporate the specific needs of parents with a child with ADHD.

An individual should be appointed as on-site coordinator of this program to plan, implement and coordinate a parent services program in cooperation with parents. This coordinator must be knowledgeable about ADHD and sensitive to the salient issues surrounding this disorder as well as empathetic to a parent's response to a diagnosis of ADHD. The following are suggested ingredients of a successful school-based parent services program.

- Provide a supportive atmosphere for parents by listening to and noting concerns about their child.
- Encourage parents to become involved in planning for their child's education and behavior management.
- Assist in the development of a parent advisory group for children with ADHD.
- Develop an information resource package for parents that includes materials about ADHD and local sources of assistance.

- Identify the common concerns of parents and school personnel about children with ADHD and implement ways to address those concerns.
- Facilitate family needs assessments, monitor ongoing needs, and evaluate the attempts to meet those needs.
- Refer parents to appropriate personnel who can provide assistance in such areas as behavior management training, communication skills training, and family therapy.
- Inform parents about group training programs for parents.
- Facilitate the development of a local parent support group and provide information about support groups, that may be nationally or regionally based.
- Provide referrals to physicians who are knowledgeable about ADHD and medication. Encourage communication among the medical community, the family, and school personnel.
- Actively offer information to school personnel about issues related to parenting a child with ADHD. Assist teachers in working with parents effectively.
- Perform an ongoing evaluation of the parent services program itself to determine if the program has had a positive effect on the child's academic life.

The benefits of a successful parent services program are many. Parents need to be involved in planning and evaluating their child's educational experiences. At a basic level, the school's recognition of the necessity to provide parents with services tailored to their needs shows a respect for parents. In addition, schools should not underestimate their role in gathering and disseminating materials about ADHD to parents. Administrators and teachers have long advocated more parental involvement. This involvement must be a two-way street, with parents assured of their own input and school personnel assured of home-school continuity for the child.

Parental involvement is a two-way street.

Parents, however, are not alone in their need and desire for a better understanding of ADHD. Teachers and other school personnel also benefit from an increased awareness of the symptoms and treatment for ADHD. A parent services program that invites their input and involvement will improve communication between school personnel and parents.

Overall, an effective school-based parent services program will encourage coordination, consistency, and cooperation between school and the home. The prime beneficiary of any program, of course, will be the child with ADHD—whose family functioning, behavior, and academic life can only be enhanced by the visible concerns of caring adults.

TEACHER TRAINING

Teachers have a dual role in referring students for assessment and in subsequently implementing appropriate classroom interventions to meet the needs of students with ADHD. However, these students are normally taught by classroom teachers who may not be trained to recognize nor handle children with special needs. Therefore, it is vital that training on ADHD be available for all teachers. This section addresses in-service training for school personnel as well as the training of tomorrow's teachers at the university level.

Training on ADHD must be available for all teachers.

GENERAL TRAINING CONSIDERATIONS

School personnel need to have a general awareness of ADHD, basic information about identification and assessment and knowledge of accepted techniques for intervention. In addition, school-based support personnel such as psychologists, educational diagnosticians, counselors, and social workers must possess a more in-depth knowledge about the disorder in order to assess, intervene, and consult effectively with teachers who instruct children with ADHD.

Many regular education and special education teachers may not be sufficiently trained to manage child behavior disorders in the classroom. Teacher training in behavior management techniques is effective in any case since it benefits the entire classroom, as does direct training in methods to raise children's self-esteem and social skills competence.

GUIDELINES FOR TRAINING

A statewide ADHD training program should be implemented to meet the training needs of existing school personnel. Direct inservice training for teachers should include:

- general knowledge about what ADHD is and is not, and what to expect from the student with ADHD;
- training in accurate identification of a student with ADHD including training in observation techniques;

- training in effective classroom organization and interventions and behavior management techniques;
- training in communicating and working with parents of children with ADHD.

The delivery of inservice education can take several forms depending on local resources. Training may include workshops by experts in behavioral disorders, audio-visual programs, and continuing education courses at colleges and universities.

A more in-depth inservice training should be available for professional support personnel involved in assessment and intervention, focusing on the disorder's effect in the classroom. These individuals must be briefed on the specific emotional, social, and familial difficulties of students with ADHD.

As an adjunct to direct training, resource materials about ADHD should be developed by the Texas Education Agency for distribution to education service centers and local school districts. This package should contain a bibliography, guidelines for identifying children with ADHD and intervention manuals for instructional personnel. Videotapes and other audio-visual materials about children with ADHD may supplement this package. A directory of service agencies and programs which help children with ADHD and their families should also be compiled.

In conclusion, a state-level facilitator with expertise in specific behavioral disorders such as ADHD is necessary to aid in and expedite the coordination and implementation of effective training programs. Lastly, a clear message must be given by the state to university teacher training programs to provide a multi-disciplinary education about the characteristics and management of students with ADHD.

RESEARCH PAPER: ATTENTION DEFICIT HYPERACTIVITY DISORDER

INTRODUCTION AND RATIONALE

Attention Deficit Hyperactivity Disorder (ADHD) (Diagnostic and Statistical Manual of Mental Disorders-Third Edition-Revised, 1987) is one of the most prevalent childhood disorders reported by schools and mental health clinics (Klee, 1986). Formerly known as Attention Deficit Disorder (A.D.D.) (DSM-III, 1980), it is also one of the most researched in the United States because of concern about the status of ADHD as a disorder distinct from others (Shaywitz & Shaywitz, 1987; Hinshaw, 1987), and because of its impact on a child's development and his or her family, classroom, and community. While ADHD can occur along with conduct disorders, learning disabilities, and emotional disorders (Henker & Whalen, 1989; Cantwell, 1984), research has established ADHD as a distinct syndrome (Bloomingdale & Sergeant, 1988). Longitudinal research suggests that the difficulties of ADHD often follow the child into adolescence and adulthood, with a portion of the population becoming delinquent and antisocial (Satterfield, Hoppe, and Schell, 1982). These children are at risk for future adjustment, education, and employment problems. They need appropriate prevention, intervention, and related services to change these outcomes (Wender, 1987; Cantwell, 1986; Weiss and Hechtman, 1986).

While the children with ADHD vary in the type and severity of their symptoms (Campbell & Werry, 1986), the core features of the disorder fall into the three categories: inattention, impulsivity, and hyperactivity (DSM III-R, 1987). Associated features can include oppositional behavior, conduct disorders, emotional difficulties, and cognitive and learning disabilities (Cantwell and Baker, 1987; Watkins, Thomeer, Brook, Stavinoha, Lauringer, & Tharinger, 1990). The syndrome is a "transactional" disorder, meaning the child's behavior results in reactions, often negative, from others. Negative interactions over time can cause significant problems in parent-child and teacher-child relationships, and may impact educational achievement. Difficulties in socialization can lead to later delinquency as well. (Hender & Whalen, 1989).

Children with ADHD can be disruptive to the point of detracting from their own and others' educational experiences. Those who are not hyperactive, but have severe difficulties with attention span and organization, are often underachieving or are accused of laziness or lack of motivation by frustrated teachers and parents unaware of ADHD symptoms and the child's relative lack of control over them. Over time, such adverse experiences can seriously affect the child's self-esteem and feelings of competence (Henker & Whalen, 1989).

In spite of well-documented difficulties and the persistence of these difficulties throughout their lives, children with only the diagnosis of ADHD are not eligible for special education services under Public Law 101-476, Individuals With Disabilities Education Act (formerly known as Public Law 94-142, The Education for All Handicapped Children Act). While some children with ADHD are eligible for special education services by meeting the criteria for learning disabled or emotionally disturbed, many are not (Shaywitz and Shaywitz, 1987). Some children with ADHD are eligible for special education services because their school districts liberally interpret the definitions and regulations (e.g., interpreting "minimal brain dysfunction" to include ADHD or interpreting "alertness" to relate to ADHD under the other health impaired category).

Through legislation (SB 1668, Section 9), an Advisory Committee was established by the Texas Education Agency in 1989 to develop guidelines for school personnel to address identification and assessment, appropriate services, teacher training, and services for families regarding issues related to children with ADHD.

> Section 9. The Central Education Agency shall establish a multidisciplinary committee to develop proposed guidelines for school districts for identifying and testing children with attention deficit disorder and to develop a proposed program for providing appropriate services to those children and their families. The guidelines shall include proposed guidelines for necessary teacher training. The agency shall report the proposed guidelines, the proposed program, and an estimate of the costs of implementing the guidelines and program to the 72nd Legislature not later than February 1, 1991.

Before outlining the guidelines, a brief historical perspective, information about the prevalence of the disorder, clinical description and developmental course, causation, and typical intervention strategies are presented.

Historical Perspective

ADHD was originally thought to be a form of "minimal brain dysfunction" (MBD) (Shaywitz and Shaywitz, 1987). While many studies have indicated possible neurological differences in children diagnosed as ADHD compared to other children (Campbell & Werry, 1986), ADHD is no longer recognized as a form of MBD. In fact, the general MBD category has been rejected, because current classification and diagnostic systems emphasize observable criteria for disorders. Along with these changes in classification, investigators identified behaviors related to ADHD: hyperactivity, restlessness, impulsivity, aggression, distractibility, and short attention span. These symptoms formed the three behavioral constructs inattention, impulsivity, and hyperactivity described in the DSM-III-R. Ongoing research and conceptualization of the disorder will be reflected in the forthcoming DSM-IV, with an emphasis on clarity of diagnosis (Swanson, 1988).

Prevalence

Research suggests that two to five percent of elementary school children meet the diagnostic criteria for ADHD (Campbell & Werry, 1986). Thus, 38,000 to 95,000 elementary school children in Texas would meet the ADHD criteria (TEA population statistics), which translates to approximately one child for every classroom. ADHD is found in three times as many boys as girls. Research findings on prevalence differences among socioeconomic groups and among secondary students has not been conclusive.

Clinical Description, Developmental Course

The diagnosis of ADHD is based on the following list of symptoms (DSM-III-R):

> The items are listed in descending order of discriminating power based on data from a national field trial of the DSM-III-R criteria for Disruptive Behavior Disorders.

Note: Consider a criterion met only if the behavior is considerably more frequent than that of most people of the same mental age.

A. A disturbance of at least six months during which at least eight of the following are present:

1. often fidgets with hands or feet or squirms in seat (in adolescents, may be limited to subjective feelings of restlessness)
2. has difficulty remaining seated when required to do so
3. is easily distracted by extraneous stimuli
4. has difficulty awaiting turn in games or group situations
5. often blurts out answers to questions before they have been completed
6. has difficulty following through on instructions from others (not due to oppositional behavior or failure of comprehension), e.g., fails to finish chores
7. has difficulty sustaining attention in tasks or play activities
8. often shifts from one uncompleted activity to another
9. has difficulty playing quietly
10. often talks excessively
11. often interrupts or intrudes on others, e.g., butts into other children's games
12. often does not seem to listen to what is being said to him or her
13. often loses things necessary for tasks or activities at school or at home (e.g., toys, pencils, books, assignments)
14. often engages in physically dangerous activities without considering possible consequences (not for the purpose of thrill-seeking); (e.g., runs into street without looking).

Diagnosis requires the presence of symptoms for at least six months in order to exclude children who may be reacting to stressful events, such as parental divorce, death in the family, or abuse. Inadequate, disorganized, or chaotic environments, including the classroom, may also cause these behaviors. The behavior of a child with ADHD is not consistent across environment or tasks (Shaywitz and Shaywitz, 1987). The child's behavior can differ significantly in a large group vs. a small group vs. a one-to-one situation, compared to other children, and when performing complex academic tasks vs. playing a computer game. These multiple considerations highlight the importance of a differential diagnosis based on multiple sources of information from multiple contexts.

Children with ADHD have difficulties focusing, maintaining, organizing, and controlling their attention (Douglas, 1980, 1983; Levine, 1987). These attentional difficulties are, in turn, related to difficulties with delaying gratification and inhibiting inappropriate thought and behavior. It is the focus on attentional processes which led to the stress on "attention deficits" when the disorder was renamed in 1980 from "Hyperactivity" to "Attention Deficit Disorder."

Some other factors thought to be related to the symptoms of ADHD include variations from the norm in cognitive functioning, motivation and reinforcement response, and social thought and social behavior (Campbell & Werry, 1986).

There is no clear evidence to suggest general deficits in cognitive functioning. Many children with ADHD perform very well on individual intelligence tests (Campbell & Werry, 1986) but poorly in school (McGee, et al., 1984; Riddle & Rappoport, 1976). A recent study suggests that children with ADHD are seven times more likely to have academic difficulties than other children (Holobrow & Berry, 1986). Poor academic performance may, in part, result from the poor organization and ineffective problem-solving stemming from attentional difficulties and poor impulse control (Douglas, 1980, 1983). Increasing academic task complexity can, without assistance and modification, lead to worsening performance. Frequent failure and lowered self-esteem can lead to lowered motivation to perform well academically (Whalen, 1987).

Related to academic achievement as well as behavior is the way a child with ADHD responds to reinforcement. Children with ADHD function much better if external and tangible, as well as social (e.g., praise), positive reinforcement is consistently given, given frequently, and is clearly related to a behavioral expectation. Performance otherwise deteriorates quickly. Gradual withdrawal of reinforcement and partial reinforcement are not effective with these children.

Many children with ADHD do poorly in interpersonal situations (Henker & Whalen, 1989). Their impulsivity and lack of attention to social cues interferes with communication and compliance at home, and with communication, sharing, and turn-taking with peers (Campbell & Werry, 1986; Ross & Ross, 1982). Rejection by peers and teachers is frequent, resulting fewer opportunities to develop social skills. Early patterns of negative interactions and lack of social skills often persist without specific intervention (Whalen & Henker, 1985).

In terms of developmental course and outcome, ADHD is characterized by onset in early childhood or infancy. Hyperactivity, if originally present, lessens over time. However, attentional deficits and impulsivity, which may be overlooked as the child's activity level decreases, continue to impact his or her development (Shaywitz and Shaywitz, 1987). The "secondary" effects of academic problems, poor socialization, and poor self-esteem or other emotional difficulties often remain or even begin to dominate (Henker and Whalen, 1989; Watkins, et. al., 1990). Research suggests that ADHD children without hyperactivity are four times as likely to repeat a grade as the hyperactive ones, are often withdrawn, and are more unhappy (Edelbrock, 1984). Although approximately half of adolescents with ADHD seem to function relatively well, the other half do not. Many become involved in delinquency, antisocial behavior, and are at risk for becoming involved with the juvenile justice system. Still others are at risk for developing adult psychopathy (Satterfield, et. al, 1982). Difficulties with task completion and impulsivity can lead to poor judgment in making personal and school- or work-related decisions, low frustration tolerance, and chronic unhappiness (Klee, et al., 1986).

The general conclusion of recent research on the outcome of ADHD is that while the symptoms may change, the disorder is life long (Wender, 1987; Weiss and Hechtman, 1986). Research on what can help this population is not conclusive, but generally the presence of informed and supportive others, the absence of family pathology and appropriate multidisciplinary intervention can help (Henker & Whalen, 1989; Whalen, 1987).

Causation

A number of biological, genetic, and environmental factors have been linked to the development of ADHD (Shaywitz and Shaywitz, 1987; Campbell & Werry, 1986). Genetic influences seem to be important, with some research suggesting that disorders characterized by deficits in impulse control are transmitted across generations (Stewart, et al., 1980). Some evidence suggests an association with prenatal factors (e.g., mother's health, drug and alcohol abuse, fetal development) and birth events (especially oxygen deprivation) (Campbell & Werry, 1986). Other studies suggest the combination of genetic and biological factors in the development of abnormalities in brain chemistry.

Whereas there is an association between the presence of ADHD symptoms and environmental factors such as family stress and poor parenting (Kinsbourne & Swanson, 1979; Battle & Lacey, 1972; Jacobvitz & Sroufe, 1986), these factors are generally not considered as causal. However, they can significantly affect the course and severity of the disorder.

Intervention

Recommended intervention for ADHD includes a combination of treatment approaches, focusing on appropriate educational management and modification when indicated, behavior management at home and at school, and medication management. This multi-model approach has been the most successful (Satterfield, et. al., 1981; Whalen, 1987).

Appropriate differential diagnosis is the first step in treatment, followed by a choice of interventions reflecting the particular needs of the child, family, and school. Medication is important for many children with ADHD. Educational management is an important priority, and includes classroom and teaching strategy modifications, specific behavior management programs, teacher training, and psychological consultation. Adjunct interventions are important for some and include family or individual psychotherapy. Nontraditional therapies such as eliminating sugar, controlling food additives, and maga-vitamin therapy have not shown any consistent benefit (Shaywitz and Shaywitz, 1987).

Summary

In summary, children with ADHD are at high risk for developmental adjustment and educational difficulties. A careful, knowledgeable, supportive, and multidisciplinary approach is required to help these youngsters with their unique needs. Many of these children have high potential. With help, they can become functional and productive individuals, taking their places among society's most creative and innovative contributors (Whalen, 1987).

GUIDELINES FOR IDENTIFICATION AND ASSESSMENT

Identifying and diagnosing Attention Deficit Hyperactivity Disorder is no simple matter, especially since other disorders are often present. The attentional processes underlying the disorder are complex. The symptoms are generally pervasive over time, but may not be consistent across situations. Because of the complexity of the disorder and its potential effects on the child's develop-

ment, assessment for ADHD should be cross-situational and multidimensional. Evaluators should use multiple sources of information to find out how the child functions in different settings and in different areas of development. All three dimensions of ADHD (attention, impulsivity, and hyperactivity) should be assessed. The assessment must involve the parent and teacher, who have primary concerns and knowledge about the child, as well as a multidisciplinary team whose members are knowledgeable about child development and psychopathology in general, and ADHD in particular (Campbell & Werry, 1986; Klee, 1986; Ross & Ross, 1982).

Since many of the symptoms of ADHD show up at school and can profoundly affect a child's educational experience, the school has an important role in identifying and assessing the disorder.

School districts are already served by multidisciplinary teams. Membership on the assessment team specifically related to children suspected of having ADHD is determined by the information required to make a diagnosis of ADHD and to determine the specific needs of the child.

A full differential assessment of children suspected of having ADHD and determining their needs should be guided by the following general questions (Cantwell & Baker, 1987).

1. Are there psychiatric, medical, neurological, or other disorders or symptoms present?
2. What factors may have caused or may be maintaining the problem?
3. What factors, strengths, or competencies are present to facilitate normal development?

More specific to the educational setting, the following questions should also be asked (adapted from *Guidelines for Assessment*, Texas Education Agency, Department of Special Education).

1. Does this child have a disability in emotional, social, or behavioral functioning which adversely affects his/her learning?
2. Are there family and/or home factors which adversely affect the child's learning?
3. Does this child have a disability in language functioning?
4. Does this child have a disability in intellectual and adaptive behavior functioning, and/or is there a learning disability or other educational difficulties?

The following activities can help staff obtain a full assessment for ADHD:

1. Conduct a pediatric physical and developmental neurological exam* to rule out the presence of factors other than ADHD;
2. Obtain a complete medical, developmental, and social history, including family history and present family functioning;
3. Assess the child's emotional, social, and behavioral functioning across home, school, and community settings, and determine the presence of any past difficulties and recent trauma;
4. Assess current language and intellectual functioning; and
5. Assess current academic functioning and history. This should also include an assessment of classroom environment and "goodness of fit" between the child and the classroom.

*Pediatric specialty is recommended so that the medical exam goes beyond stating only that the child is "healthy."

Assessment Techniques and Measures

The following techniques and measures will also help staff gather the information needed for a full assessment of possible ADHD.

1. **Interviews**
   An interview with parents is important to obtain a complete developmental history, health history, information about general temperament, social relationships, and the child's emotional and behavioral functioning over time. It is also important to assess the home and family environment through an interview. A structured interview with the child's teacher and with the child can also be helpful. It is important to include questions relating to the DSM-III-R criteria listed previously for ADHD diagnosis. Some commercially available structured interviews are available, such as the Child Assessment Schedule, Diagnostic Interview for Children, the Family Environment Scale, and the Family Assessment Measure.

2. **Observations**
   The most direct indicator of the presence of ADHD symptoms is an observation of the child in natural settings, such as the home and school, especially by a professional with training in ADHD. Teachers and parents are also valuable observers. Observations must focus on different time periods, activities (structured-unstructured), and settings to produce as complete a picture of the child as possible.

3. **Rating Scales**
   Rating scales provide normative information for comparison of the child's behavior to others, and can be obtained from a variety of people who have observed the child in different settings. They are most often given to parents and teachers as supplemental measures to observation and interview. Examples are the ADDH Comprehensive Teacher Rating Scale, the Child Behavior Checklist (teacher, parent, and observer forms), and the Conners Parent and Teacher Rating Scales.

4. **Psychoeducational Tests**
   Many of the assessment measures used in a typical psychoeducational evaluation are useful in assessing ADHD. Others are useful for investigating difficulties in a child aside from ADHD. These include intelligence tests like the Wechsler scales and the Kaufman Assessment Battery for Children. Both tests contain items which are sensitive to attention and concentration difficulties and impulse control, as are the Detroit Tests of Learning Aptitude and Matching Familiar Figures. Achievement-oriented measures include the Woodcock-Johnson Tests of Achievement-Revised, the Peabody Individual Achievement Test-Revised, and others typically administered during a psychoeducational assessment. A well-trained clinician can observe the child's approaches to problem-solving, impulse control, frustration levels, and attention/concentration levels, as well as activity level, which help in ADHD diagnosis.

Process of Assessment and Decisionmaking

Some children with ADHD are identified through private or community resources before kindergarten. Many others, however, are not identified until they face the educational and social

demands of higher grades, which include increased demands for attention and impulse control. Therefore, a process for screening and assessing children should be in place in elementary school. Although the assessment of three and four year olds may be more difficult, it is possible, and this age group should be included. This would afford the preschooler the opportunity for appropriate intervention and an educational plan if needed before entering elementary school.

School districts are currently served by multidisciplinary assessment teams. It is suggested that one member of this multidisciplinary team be designated as facilitator for the ADHD identification and assessment process.

School districts also have an overall regular education referral or screening system (19 TAC §89.232). This system should be available for children suspected of having ADHD. The ADHD facilitator would work closely with this screening committee to review ADHD referrals.

The referral and assessment process for ADHD should include several activities, as follows.

1. When a child is suspected of having ADHD by either parents, teachers, or other person, a referral is made to the ADHD assessment facilitator. At this stage, the referral information can be brief, but should include demographic information, a description of the behaviors of concern, and a description of attempts to intervene.
2. The facilitator takes the referral to the screening team. The following information will help determine if further assessment is warranted:
   - parent interview—current concerns and history;
   - behavioral observation—structured and unstructured settings and activities;
   - administration of standardized behavior rating scales—parent and teacher; and
   - review of current and past academic functioning.
3. The information compiled by the ADHD facilitator is presented at a screening team meeting. At that point, a decision is made to:
   - suggest approaches to use on a "trial basis" while comprehensive assessment is considered (e.g., classroom/curriculum modifications/interventions or individual counseling); or
   - meet with parents and discuss a comprehensive individual assessment. The parent can have this assessment done outside of school or through the district's multidisciplinary team. If the parent decides to have the assessment done outside of school, referral is made to health care providers knowledgeable and experienced with ADHD, and relevant school information sent with the referral.

A comprehensive individual assessment is recommended when further information is needed to confirm the diagnosis of ADHD and plan appropriately for the child's needs. Further assessment may also pinpoint other factors, such as intellectual deficits, learning disabilities, or emotional disturbance. The comprehensive individual assessment will add to the screening assessment the following:

- pediatric evaluation;
- assessment of intellectual and language functioning;

- full assessment of academic/achievement functioning; and
- full assessment of emotional, social, and behavioral functioning.

Final identification of ADHD in a child is made under the direction of a licensed medical practitioner or licensed psychologist who are currently knowledgeable and experienced with developmental behavioral disorders in general and ADHD in particular.

When ADHD is confirmed, representatives of the assessment team and the ADHD facilitator meet with parents to discuss appropriate educational and other interventions for the child. Specific interventions are discussed in *Appropriate Services*. If a child identified as having ADHD is also otherwise handicapped, he or she will be eligible for special education services. If the child is not eligible for special education services, an intervention plan for the child must still be drawn up. This plan must also provide for monitoring and evaluating the intervention, and an annual review. In either case, the specific attentional deficits of the child with ADHD must be addressed.

Post-Assessment Issues

When a child who has already been diagnosed as ADHD enters or transfers into a school, the responsibilities of the ADHD facilitator and assessment team are to plan, implement, and evaluate interventions, as required. If an intervention plan was in place at the child's previous school, appropriate personnel should review it to ensure "goodness of fit" with the child's present circumstances and available resources.

When an intervention plan for a child with ADHD is implemented through a private or community agency, the school, with parent permission, should actively communicate with that agency. This is especially important when the child with ADHD leaves the school temporarily to attend a day-treatment program with a school component, and subsequently returns.

APPROPRIATE SERVICES FOR STUDENTS WITH ADHD

Each child with ADHD has a unique combination of symptoms and needs, and each requires a unique combination of services to meet these needs. Six types of services are identified below from which specific combinations of interventions can be developed.

1. Support services to the child's family, with special attention to helping parents deal with their child's needs. Support services can include consultation, referral when required, and access to informational resources.
2. Teacher-implemented services, including specific instructional strategies and modifications found to be effective with children with ADHD.
3. Consultation services to classroom teachers by support personnel. These personnel provide service indirectly to the child, by helping teachers implement interventions.
4. Direct services of support personnel. These services address the behavioral or emotional needs of students who require individual and/or group therapy outside of the classroom.

5. Services of support programs for which the child is eligible, such as special education, compensatory education, and programs for at-risk students. A child with ADHD who does not qualify for special education services may still be eligible for other programs.
6. Ongoing evaluation of the child's specific intervention needs, and modification of services as appropriate.

This list of service categories is not exhaustive, but represents components of an effective school-based program. Many children with ADHD also benefit from medication (see Appendix B for a discussion of medication intervention). Some benefit from community day treatment programs outside of school. When outside interventions are implemented, the school has an important role in communication with other professionals and agencies involved with the child.

Classroom Interventions

School is where most children with ADHD experience their most serious difficulties. These children often need the instructional approach and physical arrangement modified in order to succeed. Classroom interventions can be grouped into three types: instructional strategies, environmental structuring, and behavior management. Many of these interventions can be used by regular education teachers, especially if they receive appropriate training.

There is a good deal of information available to help teachers implement effective classroom interventions for students with ADHD. The following guidelines are taken from Cobb (1987), Dupaul (1989), Goldstein and Goldstein (1987), Hallahan et. al. (1982), Kendall and Braswell (1985), Parker (1988), and Williams (1989).

Instructional Strategies

- Teach the child at his/her instructional level rather than frustration level. Children with ADHD are often frustrated with too many demands. This frustration can contribute to low self-esteem.
- Teach concepts in smaller units when appropriate, with frequent review. Avoid repetitive material and find alternate ways to teach a concept.
- Give instructions one at a time, and have the child repeat them before starting work. Personally, help the child get started on a task after the group has been given directions. Check periodically to see that the child still understands and is following directions. Make frequent unobtrusive contact with the child, touching him or her lightly or speaking his or her name gently, to help the child stay on task.
- Use learning aides such as computers, tape recorders, and calculators, when appropriate. Interactive computer programs can be especially useful in maintaining the child's interest and attention.
- Whenever possible, use a cooperative learning approach and other grouping arrangements to help the child with ADHD. These approaches can foster better communication and social skills.
- Provide the child with direct intervention and/or modeling for improved organization and focus.

- Break assignments into smaller units, and check completed work frequently. Encourage accuracy and completion and discourage impulsive and hasty task approaches. Adapt work sheets so that less material is on each page. A full page of material can both distract and frustrate the child with ADHD.
- Alternate types of assignments to help keep their attention.
- Give the child extra time to work on assignments. Modify written assignments. For example, ask the child to write a detailed outline about a subject rather than an extensive essay. Older children may be able to complete assignments with a word processor rather than by hand.
- Give regular and specific feedback to the child about his or her work. Focus on success, concept learning, and application.
- Modify testing of child's mastery of content. Consider using multiple-choice tests or one-to-one oral tests, or allowing him or her to demonstrate knowledge through discussion, presentations, and special projects.
- Since children with ADHD may not do well on standardized timed group tests, supplement the results with individual testings.

Environmental Structuring

- Place the child with ADHD in the least distracting location in the classroom during whole-class teaching. This is often at the front of the classroom and/or near the teacher, and away from doors and windows. The child should sit near students who can model on-task behavior and not reinforce inappropriate behavior.
- When independent seatwork is required, provide a place for the child to work away from the group. Take care to supervise the child, however, since many children with ADHD are highly self-distracting.
- Provide as much structure, predictability, and regularity as possible, and set strong, consistent limits.
- Many children with ADHD have difficulty staying in one place for very long. Provide opportunities for the child to stand, move to different activity centers, and back and forth from his/her desk to another personal working space.

Behavior Management and Cognitive-Behavioral Approaches

- Use positive and negative consequences together, and make sure the child has a very clear understanding of what they are and upon what behavior they are contingent.
- Provide prompt and frequent positive reinforcement for desired behavior, including on-task behavior. Positive reinforcement can take many forms, including attention, verbal praise, and earning points to trade for tangible rewards and/or special privileges.
- Use mild reprimands and logical consequences, such as time-out from the group, for inappropriate behavior. Before the child returns to the group, discuss the event with the child, identifying behavioral alternatives.

- Some children with ADHD respond well to a "response-cost" approach to behavior management. That is, a child starts a day or given time period with a set number of points or tokens and keeps that number by complying with task or behavioral expectations. Points or tokens are taken away for breaches of expectation, but without scolding or lecturing. Give encouragement instead.
- Many children with ADHD also respond well to a "daily goalcard" system. The parents, teacher, and child develop a set of goals that identifies specific behaviors or tasks in which the child needs improvement. The child carries a small chart between school and home. Progress is marked daily on the chart by both teacher and parents, and positive reinforcement is given at home and at school. Older children can note their own evaluation of their progress on the chart.
- Pay particular attention to the strengths and potential leadership qualities of the child with ADHD. Point these qualities out to the child, provide opportunities for him/her to show and use them with other students, and follow-up with positive reinforcement. This helps re-direct potential negative behavior and raises self-esteem as well.
- Teach and encourage the child to self-monitor behavior and assignments. For example, have the child use positive self-talk and monitor his/her own activity and progress at specific set times. Teach the child to use problem-solving skills. Help the child to "stop, look, and think" by having him/her define a task, specify the steps of the task, generate ways to do the task, and evaluate possible outcomes of the alternatives before tackling an assignment. These strategies are helpful for other kinds of challenges, such as conflicts with peers.

The classroom teacher can also help the child with ADHD with his/her social skills. Social skills deficits can be as debilitating to the child's progress as academic deficiencies. While intervention is often provided by counselors in small groups, teachers can extend social skills training to the classroom, and reinforce what the child has learned in counseling groups. Several social skills instructional programs for the classroom are commercially available (e.g., Gresham and Elliott, 1990; Goldstein, 1988; Goldstein et. al., 1977).

With children receiving medication, the teacher has an important role. Teachers can be the best observers of behavior, noting changes and/or side effects, and can report these to the child's parents or physician.Teachers can help the child by avoiding embarrassing comments about the medication and by handling dispensing times discreetly and sensitively. Teachers should not give too much credit or blame to the medication in terms of the child's behavior.

Consultation Services for Teachers

Classroom teachers sometimes need help in planning and implementing an intervention program for a specific child. In these cases, the teacher needs access to appropriate support personnel such as counselors, psychologist, social workers, and education specialists for consultation.

Consultation services can be provided in a several ways. A specialist can help a teacher determine whether to refer a child for assessment. Consultation can be provided about interim interventions to use before or during an assessment.

Specialists can also consult with teachers after the assessment has been completed and an intervention plan developed. Consultation focuses on how to implement the plan. This type of consultation is more beneficial if techniques can be modeled in the classroom by the consultant.

Teachers may also receive consultation from school-based master teachers experienced with behavioral disorders and educational programming for children with special needs.

Consultants can help teachers develop and try out adjunct programs for children with ADHD, such as mentor programs and peer tutoring programs. In mentor programs, successful older students and adults with ADHD serve as models and help the child by sharing their experiences and successful coping methods. In peer tutoring programs, cooperative learning experiences are provided between the child with ADHD and successful students without ADHD.

Finally, consultants can play a role in researching and acquiring appropriate technical aids for teaching children with ADHD. These aids can include specific computer programs, especially those that are interactive, which help to maintain attention. These can also include such behavior management aids as self-monitoring devices.

Direct Services of Support Personnel

The child with ADHD often benefits by receiving direct counseling services to supplement classroom-based interventions. The focus of counseling usually includes helping the child with emotional difficulties, family difficulties, self-esteem development, and self-control. Effective counseling may be provided individually or in small groups, depending on individual needs. Counseling can be provided by school counselors, social workers trained in counseling, psychological associates, or psychologists.

When counseling, care must be taken to provide for as much generalization as possible to other settings, especially the classroom. For example, the child working on problem-solving or social skills should be able to practice in the classroom. This requires communication between the counselor and the teacher, so that the teacher can plan ideal times and tasks for practice.

Counselors can be instrumental in setting up peer counseling and assistance programs, as well as social skills training groups. They can make referrals for services not normally provided by the school. They can also help communicate with parents and outside agencies, and act as a liaison between parents and teachers.

Services of Support Programs

When a child is eligible for special education services, the interventions available through special education become available to the child. Often, however, children with ADHD are not eligible for such services, and even when eligible, the services may not address the specific attentional difficulties the child displays. All students with ADHD need to also be considered for other established services such as programs for students who are at risk and content mastery programs.

Summary

The needs of children with ADHD are unique, and services to address those needs must be tailored to the individual child. While some children require the services of professionals and agencies outside of school, many can be helped through school, or district-based services. Careful planning, coordination, and implementation will help to assure the child's optimum development and access to an appropriate education.

RATIONALE AND GUIDELINES FOR PARENT SERVICES

Introduction

Raising a child is a challenging and sometimes humbling experience. For families with a child with ADHD, the challenge can be particularly difficult. The child is often disorganized, inattentive, and will not comply with parent requests. Homework is often not completed. Meals and family outings can be particularly disruptive. Peer and sibling interactions must be monitored. Yet, the child looks normal and most are very intelligent.

A child with ADHD has an impact on many aspects of family life, including the parent-child, marital and sibling relationships. It can be difficult for the family to interact with the larger community, including the school. The family with a child with ADHD has specific needs which should be addressed jointly by the professional and educational community. Not all of these needs can be met through school-based parent services programs, but the educational community has a significant role.

Family Issues and Needs

Most often, parents spend an extraordinary amount of time and energy with a child with ADHD, sometimes with few positive results. This can cause stress within the family. Parents know that their child is different, although they may have no clear understanding of what those differences are or what caused them. Parents soon realize that they must reevaluate their expectations for their child. They may feel badly about their perceived inability to control the child's behavior, frustrated and guilty about the increasing difficulty in responding positively to him or her, and may resent the child's monopoly on their time and energy. These feelings conflict with their natural feelings of protectiveness, and their sadness about their child's difficulties and failures.

> Parents who have been successful in raising other children become frustrated when they realize that their parenting skills are ineffective with the ADHD child and the usual praise, rewards, and punishments do not work. They feel a great deal more anxiety and stress when disciplining their hyperactive child than they do when disciplining their other children. They find it difficult to set limits for the ADHD child and maintain order in the home while protecting the rights of other family members. The inability to cope with the demands of the hyperactive/ADHD child and the pressures that he exerts on the entire family contribute to feelings of inadequacy and diminished self-esteem in many parents. (C. McFee in Moghadam, 1987)

When their child is also having difficulty in school, these feelings may be intensified by the apparent lack of understanding and response by school personnel to requests for help for their child.

Parents of children with ADHD are often the brunt of unsolicited, conflicting, and confusing advice, and may perceive hidden messages implying marital problems or poor parenting skills. All of this can lead to defensive and hostile parental attitudes and a feeling that their concerns are ignored by the professional and educational community.

These issues indicate a need for professionals, including school personnel, to provide empathy and support to the parents of the child with ADHD. Understanding of parental feelings and concerns by professionals is an essential element in the treatment of the child.

In addition to the need for empathy and support, parents of children with ADHD seem to benefit from (Moghadam, 1987; Simpson, 1988; Barkley, 1987):

1. early identification and intervention to decrease the possibility of a spiraling cycle of family and parent-child dysfunction, and worsening pathology and/or academic difficulty for the child.
2. accurate information about ADHD, as well as information about sources of therapeutic support for both the child and the family.
3. assessment of the specific needs of the family.
4. communication, coordination, and consistency among home, school, and community agency approaches and interventions with their child.
5. their involvement in planning for and intervening with the child.
6. participation in parent training programs as part of multi-modality intervention. This involves training in and implementation of behavior management or cognitive-behavioral modification approaches, problem-solving, and conflict management.
7. participation in parent support groups. Interaction and information-sharing with other parents helps to provide support, builds self-esteem and provides relief from the feelings of isolation and frustration in raising a child with ADHD.

Parents who are well-informed about ADHD and successful in parenting their child indicate a need for respectful response from professional and educational personnel to their concerns about appropriate educational planning.

Proposed School-Based Parent Services Program

A comprehensive services program for parents of a child with ADHD should be available in the school. An existing parent service program may be modified to include the specific needs of parents with a child with ADHD.

A parent services coordinator, ADHD facilitator, social worker, or counselor should coordinate the program at the campus or district level. This person plans, implements and coordinates a parent services program with parents of ADHD students. This person must be knowledgeable about ADHD, should not have administrative responsibilities, and can serve as a child and family advocate.

The coordinator of the parent services program develops and implements the components of the program by:

1. providing a supportive atmosphere for parents by listening and noting their concerns;
2. involving the parents in planning their child's education and behavior management;
3. helping organize a parent advisory group for children with ADHD;
4. developing an information resource package for parents that includes information about ADHD and local resources;
5. identifying joint concerns of parents and school personnel about children with ADHD and implementing ways to address those concerns, and encouraging other vehicles for parent-school cooperation, such as independent community groups and organizations which may be able to assist with research and funding for special projects;
6. facilitating family needs assessments, monitoring needs, and evaluating attempts to meet those needs;
7. referring parents to personnel who can help with behavior management training, communication skills training, training in working effectively with teachers, and family therapy;
8. providing information to parents about parent training programs;
9. providing information about national, regional, and local parent support groups; facilitating the development of local parent support groups where not already established, while ensuring that leadership of such groups is appropriate;
10. providing referral and liaison with physicians who are knowledgeable about ADHD and medication, and encouraging communication among them, the family, and school personnel, with special emphasis on the school nurse where applicable;
11. providing information to school personnel about issues related to parenting a child with ADHD, to increase their understanding and empathy; helping teachers work with parents effectively;
12. providing ongoing evaluation of the parent services program itself, to determine if the program is helping the child.

The objective of implementation of the above services include the following:

1. Parents will feel supported and respected, which will help in coping more effectively with their child and family stresses;
2. Parents will receive information about ADHD early in the process of realizing that their child has special needs;
3. Parents will receive accurate information about ADHD, and be referred as early as possible to appropriate sources of assistance or intervention for the child and/or family;
4. Parents will be involved in planning and evaluating their child's educational experiences;
5. A better understanding about ADHD by school personnel will positively affect communication and planning with parents of a child with ADHD;

6. There will be increased coordination, consistency, and cooperation among home and school/agency personnel involved with the child with ADHD towards more positive outcomes in behavior, academic development, and family functioning.

RATIONALE AND GUIDELINES FOR TEACHER TRAINING

Introduction

Most children with ADHD have serious difficulties in school because of high demands on attention, self-control, and compliance. Teaching a child with ADHD is a challenge for the best of teachers. The child often daydreams, does not seem to listen, and has difficulty following directions. He/she has difficulty starting a task and completing it. Some have perceptual-motor difficulties that interfere with written assignments. Many children with ADHD are disruptive in class which hinders everyone's academic progress. Whereas most children learn the rules of appropriate behavior relatively easily, children with ADHD need to be taught repeatedly how to listen, when and how to be on task, how to organize and complete assignments, and how to control their impulsivity and emotions. Some teachers are successful with these students, but others find the child with ADHD extremely difficult to manage and to teach.

Academic underachievement and behavior problems are the primary complaints of administrators, teachers, and parents of children with ADHD. Unfortunately, most of these students repeatedly fail to qualify for special education services which might address some of those problems. In general they are taught by the regular classroom teacher, who may not be trained to recognize and deal with children with special needs.

Because teachers play an important part in both initial referral and in subsequent classroom intervention, it is important that teachers receive training in dealing with children with ADHD. Further training for consultants and other support personnel is also recommended.

General Training Considerations

It is important that school personnel have a general awareness of ADHD, information about identification and assessment, and an awareness of general techniques for intervention. This type of training should also be provided at the preservice level, possibly as part of exposure to children with special needs in general. School-based support personnel such as psychologists, educational diagnosticians, counselors, social workers, and others involved with special needs children need a higher level of knowledge about ADHD to assess, intervene, and consult effectively with teachers working with children with ADHD.

Several research studies have provided rationale for some teacher training suggestions. They have indicated the following about teacher training as related to special populations:

1. Many regular education and special education teachers are not sufficiently trained to deal with specific behavior disorders in the classroom (Etter, 1987).

2. When teachers are trained in techniques to use with students with special needs, all students in a classroom seem to benefit from the teacher's knowledge and skills (Walters, 1987).
3. Even for special education teachers specially trained to deal with severe behavior disorders, several areas are not adequately emphasized, including observation and assessment, and communication skills for parent/professional interaction (Grosenick, 1983; Russell, 1984).
4. Teacher training in behavior management techniques is effective in general, as is training in methods to raise children's self-esteem and social skills competence (Ascione & Borg, 1983; Allen & Forman, 1984; Fagen & Hill, 1977). These are special concerns for children with ADHD.
5. Interagency cooperation in teacher training and inservice is an effective and efficient way to provide the knowledge and skill needed for dealing with children with special needs (Noel, 1986; Sanspree & Arthur-Allison, 1987).

Guidelines for Training

It is important that a statewide preservice and inservice ADHD training program be implemented. The program should involve developing a resource/information guide about ADHD, inservice training on ADHD for teachers and other instructional personnel, more in-depth training for specialists involved in assessment and intervention with children with ADHD, and preservice teacher training programs to provide information about special populations in general, and ADHD in particular.

Resource Materials

As an adjunct to direct training, resource materials about ADHD need to be compiled or developed by the Texas Education Agency to distribute to education service centers and local school districts. This package should contain a bibliography, guidelines for identifying children with ADHD in the classroom and intervention manuals for instructional personnel. Videotapes about children with ADHD and appropriate classroom interventions may supplement this package.

A listing or directory of service agencies and programs dealing with children with ADHD and their families is also important, and should be compiled on two levels: one to contain statewide and/or national information, and one to contain information specific to the area in which a district is located. The latter can be done by the ADHD facilitator or an education service center.

Inservice Education for Instructional Personnel

Instructional personnel and administrators need general information about ADHD to recognize a student suspected of having ADHD and to provide appropriate intervention in the classroom. Inservice training should include:

1. general knowledge about what ADHD is and is not, what to expect in general from the child with ADHD, and what classroom interventions are and are not effective;
2. training in accurate and appropriate identification of the child with ADHD, which includes training in effective observation techniques;

3. training in communicating and working with parents of children with ADHD effectively;
4. the idea that ADHD is not a hopeless affliction; teachers can make a difference when they have a variety of strategies and are supported by effective consultation.

Inservice education can take several forms, depending on local resources. They may include:

- presentations by experts on behavioral disorders at workshops at the state, regional, or local level;
- state-provided TI-IN programs that school districts can copy;
- continuing education opportunities in colleges and universities; and
- release time for observation and consultation.

Inservice Education for Assessment and Intervention Personnel

A higher level of training about ADHD is important for specialists in assessment and intervention, with a specific focus on the disorder's effect in the classroom. This is important because these specialists provide indirect service to children by consulting with the classroom teacher and administrator whose knowledge and experience with ADHD may be limited.

It is also important for these support personnel to know about the specific emotional, social, and familial difficulties of some children with ADHD, since they may be involved in assessment or direct intervention with the child outside the classroom. This knowledge is also needed to make informed referrals to the appropriate community professionals or agencies.

There are several options for inservice delivery of this level of training. Some of these support personnel have already received preservice training in dealing with ADHD. Those who have not need to attend presentations by experts in the field or professional conferences specifically addressing their training needs beyond that provided to instructional personnel.

University Training for Prospective Teachers and Other Personnel

Less time and energy would be spent on training and inservice if teachers and other personnel were adequately prepared at the university level to identify, assess, and intervene with special population students in general; and students with ADHD in particular. A clear message must be given by the state to university teacher training programs to provide a multi-disciplinary education on the characteristics and management of students with ADHD to all prospective teachers. This is especially important since most children with ADHD are in regular education programs.

In conclusion, teachers, administrators, and consultants need to have accurate knowledge about ADHD to meet the needs of students with ADHD appropriately. The most efficient way of ensuring that these training needs are met would be through a state-level facilitator with expertise in specific behavioral disorders such as ADHD and in facilitating, coordinating, and implementing effective training programs.

MEDICATION MANAGEMENT OF ATTENTION DEFICIT/HYPERACTIVITY DISORDER

Carol Daniel, M.D.

Medication helps children with ADHD improve their attention span and reduce distractibility. Sometimes modifying the child's classroom environment and home environment will achieve the same results, but often these changes are inadequate by themselves. Medication works best when combined with behavior modification techniques and sometimes with counseling.

There are several types of medications which are useful in treating ADHD. The central nervous system stimulants include Ritalin (Methylphenidate), Cylert (Pemoline), and Dexedrine (Dextroamphetamine). Each medication can improve impulse control and attention. Side effects are similar, and include loss of appetite, insomnia; less common effects include nervousness, irritability, headache, and stomach upset. Allergic reactions are rare, but can occur as with any medication. All stimulants have the potential to unmask tic disorders, but are not thought to cause the tic disorders. Different forms of these medications may take effect with varying rates and with varying durations of action. There may also be some responses unique to a given child. These medications are not expected to cause elevation or depression of mood, nor reduce explosive or hostile behavior. They are not intended for treatment of psychotic or emotionally disturbed children.

Psychotropic medications like Mellaril (Thioridazine), and Haldol (Haloperidol) are more commonly used in children who, in addition to attention deficits, have mental retardation or behavioral problems related to disturbance of emotions or conduct. They may cause drowsiness which could interfere with school function. Occasionally side effects are seen such as movement disorders or severe allergic reactions. When discontinued, these medications should be slowly tapered instead of abruptly stopped.

Antidepressants are useful for children and adolescents whose attention problems and distractibility seem to result from depression. They may also cause drowsiness.

Although this is not a comprehensive list of medications that can be used in children with ADHD, it is intended to show the scope of treatment from a medical standpoint. Medication use needs to be monitored carefully by medical personnel who are familiar with their use and effects. If medication is to be effective, it must be given at regular intervals, as prescribed by the physician.

It is incumbent upon school personnel to administer medication in the way in which it was prescribed. In this way, the prescribing physician can determine best if the dose and type of medication prescribed are appropriate and effective.

Administering prescribed medication at school should never humiliate or embarrass the children who take it. Although teachers must see to it that the children in their class get prescribed medication at the appropriate time, they should do so discreetly.

Medications for ADHD can only be expected to help the condition for which it is prescribed. A child who has other emotional or psychiatric diagnoses will require appropriate management of those conditions as well.

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UNITED STATES DEPARTMENT OF EDUCATION
OFFICE OF SPECIAL EDUCATION AND REHABILITATIVE SERVICES
THE ASSISTANT SECRETARY

MEMORANDUM

SEP 16 1991

DATE :

TO : Chief State School Officers

FROM : Robert R. Davila
Assistant Secretary
Office of Special Education
and Rehabilitative Services

Michael L. Williams
Assistant Secretary
Office for Civil Rights

John T. MacDonald
Assistant Secretary
Office of Elementary
and Secondary Education

SUBJECT: Clarification of Policy to Address the Needs of Children with Attention Deficit Disorders within General and/or Special Education

I. Introduction

There is a growing awareness in the education community that attention deficit disorder (ADD) and attention deficit hyperactive disorder (ADHD) can result in significant learning problems for children with those conditions.[1] While estimates of the prevalence of ADD vary widely, we believe that three to five percent of school-aged children may have significant educational problems related to this disorder. Because ADD has broad implications for education as a whole, the Department believes it should clarify State and local responsibility under Federal law for addressing the needs of children with ADD in the schools. Ensuring that these students are able to reach their fullest potential is an inherent part of the National education goals and AMERICA 2000. The National goals, and the strategy for achieving them, are based on the assumptions that: (1) all children can learn and benefit from their education; and (2) the educational community must work to improve the learning opportunities for all children.

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[1] While we recognize that the disorders ADD and ADHD vary, the term ADD is being used to encompass children with both disorders.

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This memorandum clarifies the circumstances under which children with ADD are eligible for special education services under Part B of the Individuals with Disabilities Education Act (Part B), as well as the Part B requirements for evaluation of such children's unique educational needs. This memorandum will also clarify the responsibility of State and local educational agencies (SEAs and LEAs) to provide special education and related services to eligible children with ADD under Part B. Finally, this memorandum clarifies the responsibilities of LEAs to provide regular or special education and related aids and services to those children with ADD who are not eligible under Part B, but who fall within the definition of "handicapped person" under Section 504 of the Rehabilitation Act of 1973. Because of the overall educational responsibility to provide services for these children, it is important that general and special education coordinate their efforts.

II. Eligibility for Special Education and Related Services under Part B

Last year during the reauthorization of the Education of the Handicapped Act [now the Individuals with Disabilities Education Act], Congress gave serious consideration to including ADD in the definition of "children with disabilities" in the statute. The Department took the position that ADD does not need to be added as a separate disability category in the statutory definition since children with ADD who require special education and related services can meet the eligibility criteria for services under Part B. This continues to be the Department's position.

No change with respect to ADD was made by Congress in the statutory definition of "children with disabilities;" however, language was included in Section 102(a) of the Education of the Handicapped Act Amendments of 1990 that required the Secretary to issue a Notice of Inquiry (NOI) soliciting public comment on special education for children with ADD under Part B. In response to the NOI (published November 29, 1990 in the Federal Register), the Department received over 2000 written comments, which have been transmitted to the Congress. Our review of these written comments indicates that there is confusion in the field regarding the extent to which children with ADD may be served in special education programs conducted under Part B.

A. Description of Part B

Part B requires SEAs and LEAs to make a free appropriate public education (FAPE) available to all eligible children with disabilities and to ensure that the rights and protections of Part B are extended to those children and their parents. 20 U.S.C. 1412(2); 34 CFR §§300.121 and 300.2. Under Part B, FAPE, among other elements, includes the provision of special education and related services, at no cost to parents, in

conformity with an individualized education program (IEP). 34 CFR §300.4.

In order to be eligible under Part B, a child must be evaluated in accordance with 34 CFR §§300.530-300.534 as having one or more specified physical or mental impairments, and must be found to require special education and related services by reason of one or more of these impairments.[2] 20 U.S.C. 1401(a)(1); 34 CFR §300.5. SEAs and LEAs must ensure that children with ADD who are determined eligible for services under Part B receive special education and related services designed to meet their unique needs, including special education and related services needs arising from the ADD. A full continuum of placement alternatives, including the regular classroom, must be available for providing special education and related services required in the IEP.

B. Eligibility for Part B services under the "Other Health Impaired" Category

The list of chronic or acute health problems included within the definition of "other health impaired" in the Part B regulations is not exhaustive. The term "other health impaired" includes chronic or acute impairments that result in limited alertness, which adversely affects educational performance. Thus, children with ADD should be classified as eligible for services under the "other health impaired" category in instances where the ADD is a chronic or acute health problem that results in limited alertness, which adversely affects educational performance. In other words, children with ADD, where the ADD is a chronic or acute health problem resulting in limited alertness, may be considered disabled under Part B solely on the basis of this disorder within the "other health impaired" category in situations where special education and related services are needed because of the ADD.

C. Eligibility for Part B services under Other Disability Categories

Children with ADD are also eligible for services under Part B if the children satisfy the criteria applicable to other disability categories. For example, children with ADD are also eligible for services under the "specific learning disability" category of

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[2] The Part B regulations define 11 specified disabilities. 34 CFR §300.5(b)(1)-(11). The Education of the Handicapped Act Amendments of 1990 amended the Individuals with Disabilities Education Act [formerly the Education of the Handicapped Act] to specify that autism and traumatic brain injury are separate disability categories. See section 602(a)(1) of the Act, to be codified at 20 U.S.C. 1401(a)(1).

Part B if they meet the criteria stated in §§300.5(b)(9) and 300.541 or under the "seriously emotionally disturbed" category of Part B if they meet the criteria stated in §300.5(b)(8).

III. Evaluations under Part B

A. Requirements

SEAs and LEAs have an affirmative obligation to evaluate a child who is suspected of having a disability to determine the child's need for special education and related services. Under Part B, SEAs and LEAs are required to have procedures for locating, identifying and evaluating all children who have a disability or are suspected of having a disability and are in need of special education and related services. 34 CFR §§300.128 and 300.220. This responsibility, known as "child find," is applicable to all children from birth through 21, regardless of the severity of their disability.

Consistent with this responsibility and the obligation to make FAPE available to all eligible children with disabilities, SEAs and LEAs must ensure that evaluations of children who are suspected of needing special education and related services are conducted without undue delay. 20 U.S.C. 1412(2). Because of its responsibility resulting from the FAPE and child find requirements of Part B, an LEA may not refuse to evaluate the possible need for special education and related services of a child with a prior medical diagnosis of ADD solely by reason of that medical diagnosis. However, a medical diagnosis of ADD alone is not sufficient to render a child eligible for services under Part B.

Under Part B, before any action is taken with respect to the initial placement of a child with a disability in a program providing special education and related services, "a full and individual evaluation of the child's educational needs must be conducted in accordance with requirements of §300.532." 34 CFR §300.531. Section 300.532(a) requires that a child's evaluation must be conducted by a multidisciplinary team, including at least one teacher or other specialist with knowledge in the area of suspected disability.

B. Disagreements over Evaluations

Any proposal or refusal of an agency to initiate or change the identification, evaluation, or educational placement of the child, or the provision of FAPE to the child is subject to the

written prior notice requirements of 34 CFR §§300.504-300.505.[3] If a parent disagrees with the LEA's refusal to evaluate a child or the LEA's evaluation and determination that a child does not have a disability for which the child is eligible for services under Part B, the parent may request a due process hearing pursuant to 34 CFR §§300.506-300.513 of the Part B regulations.

IV. Obligations Under Section 504 of SEAs and LEAs to Children with ADD Found Not To Require Special Education and Related Services under Part B

Even if a child with ADD is found not to be eligible for services under Part B, the requirements of Section 504 of the Rehabilitation Act of 1973 (Section 504) and its implementing regulation at 34 CFR Part 104 may be applicable. Section 504 prohibits discrimination on the basis of handicap by recipients of Federal funds. Since Section 504 is a civil rights law, rather than a funding law, its requirements are framed in different terms than those of Part B. While the Section 504 regulation was written with an eye to consistency with Part B, it is more general, and there are some differences arising from the differing natures of the two laws. For instance, the protections of Section 504 extend to some children who do not fall within the disability categories specified in Part B.

A. Definition

Section 504 requires every recipient that operates a public elementary or secondary education program to address the needs of children who are considered "handicapped persons" under Section

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[3] Section 300.505 of the Part B regulations sets out the elements that must be contained in the prior written notice to parents:

> (1) A full explanation of all of the procedural safeguards available to the parents under Subpart E;
> (2) A description of the action proposed or refused by the agency, an explanation of why the agency proposes or refuses to take the action, and a description of any options the agency considered and the reasons why those options were rejected;
> (3) A description of each evaluation procedure, test, record, or report the agency uses as a basis for the proposal or refusal; and
> (4) A description of any other factors which are relevant to the agency's proposal or refusal.

34 CFR §300.505(a)(1)-(4).

504 as adequately as the needs of nonhandicapped persons are met. "Handicapped person" is defined in the Section 504 regulation as any person who has a physical or mental impairment which substantially limits a major life activity (e.g., learning). 34 CFR §104.3(j). Thus, depending on the severity of their condition, children with ADD may fit within that definition.

B. Programs and Services Under Section 504

Under Section 504, an LEA must provide a free appropriate public education to each qualified handicapped child. A free appropriate public education, under Section 504, consists of regular or special education and related aids and services that are designed to meet the individual student's needs and based on adherence to the regulatory requirements on educational setting, evaluation, placement, and procedural safeguards. 34 CFR §§104.33, 104.34, 104.35, and 104.36. A student may be handicapped within the meaning of Section 504, and therefore entitled to regular or special education and related aids and services under the Section 504 regulation, even though the student may not be eligible for special education and related services under Part B.

Under Section 504, if parents believe that their child is handicapped by ADD, the LEA must evaluate the child to determine whether he or she is handicapped as defined by Section 504. If an LEA determines that a child is not handicapped under Section 504, the parent has the right to contest that determination. If the child is determined to be handicapped under Section 504, the LEA must make an individualized determination of the child's educational needs for regular or special education or related aids and services. 34 CFR §104.35. For children determined to be handicapped under Section 504, implementation of an individualized education program developed in accordance with Part B, although not required, is one means of meeting the free appropriate public education requirements of Section 504.[4] The child's education must be provided in the regular education classroom unless it is demonstrated that education in the regular environment with the use of supplementary aids and services cannot be achieved satisfactorily. 34 CFR §104.34.

Should it be determined that the child with ADD is handicapped for purposes of Section 504 and needs only adjustments in the regular classroom, rather than special education, those adjustments are required by Section 504. A range of strategies is available to meet the educational needs of children with ADD.

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[4]Many LEAs use the same process for determining the needs of students under Section 504 that they use for implementing Part B.

Regular classroom teachers are important in identifying the appropriate educational adaptions and interventions for many children with ADD.

SEAs and LEAs should take the necessary steps to promote coordination between special and regular education programs. Steps also should be taken to train regular education teachers and other personnel to develop their awareness about ADD and its manifestations and the adaptations that can be implemented in regular education programs to address the instructional needs of these children. Examples of adaptations in regular education programs could include the following:

> providing a structured learning environment; repeating and simplifying instructions about in-class and homework assignments; supplementing verbal instructions with visual instructions; using behavioral management techniques; adjusting class schedules; modifying test delivery; using tape recorders, computer-aided instruction, and other audio-visual equipment; selecting modified textbooks or workbooks; and tailoring homework assignments.

Other provisions range from consultation to special resources and may include reducing class size; use of one-on-one tutorials; classroom aides and note takers; involvement of a "services coordinator" to oversee implementation of special programs and services, and possible modification of nonacademic times such as lunchroom, recess, and physical education.

Through the use of appropriate adaptations and interventions in regular classes, many of which may be required by Section 504, the Department believes that LEAs will be able to effectively address the instructional needs of many children with ADD.

C. <u>Procedural Safeguards Under Section 504</u>

Procedural safeguards under the Section 504 regulation are stated more generally than in Part B. The Section 504 regulation requires the LEA to make available a system of procedural safeguards that permits parents to challenge actions regarding the identification, evaluation, or educational placement of their handicapped child whom they believe needs special education or related services. 34 CFR §104.36. The Section 504 regulation requires that the system of procedural safeguards include notice, an opportunity for the parents or guardian to examine relevant records, an impartial hearing with opportunity for participation by the parents or guardian and representation by counsel, and a

review procedure. Compliance with procedural safeguards of Part B is one means of fulfilling the Section 504 requirement.[3] However, in an impartial due process hearing raising issues under the Section 504 regulation, the impartial hearing officer must make a determination based upon that regulation.

V. Conclusion

Congress and the Department have recognized the need to provide information and assistance to teachers, administrators, parents and other interested persons regarding the identification, evaluation, and instructional needs of children with ADD. The Department has formed a work group to explore strategies across principal offices to address this issue. The work group also plans to identify some ways that the Department can work with the education associations to cooperatively consider the programs and services needed by children with ADD across special and regular education.

In fiscal year 1991, the Congress appropriated funds for the Department to synthesize and disseminate current knowledge related to ADD. Four centers will be established in Fall, 1991 to analyze and synthesize the current research literature on ADD relating to identification, assessment, and interventions. Research syntheses will be prepared in formats suitable for educators, parents and researchers. Existing clearinghouses and networks, as well as Federal, State and local organizations will be utilized to disseminate these research syntheses to parents, educators and administrators, and other interested persons.

In addition, the Federal Resource Center will work with SEAs and the six regional resource centers authorized under the Individuals with Disabilities Education Act to identify effective identification and assessment procedures, as well as intervention strategies being implemented across the country for children with ADD. A document describing current practice will be developed and disseminated to parents, educators and administrators, and other interested persons through the regional resource centers network, as well as by parent training centers, other parent and consumer organizations, and professional organizations. Also, the Office for Civil Rights' ten regional offices stand ready to provide technical assistance to parents and educators.

It is our hope that the above information will be of assistance to your State as you plan for the needs of children with ADD who require special education and related services under Part B, as well as for the needs of the broader group of children with ADD

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[3]Again, many LEAs and some SEAs are conserving time and resources by using the same due process procedures for resolving disputes under both laws.

who do not qualify for special education and related services under Part B, but for whom special education or adaptations in regular education programs are needed. If you any questions, please contact Jean Peelen, Office for Civil Rights; (Phone: 202/732-1635), Judy Schrag, Office of Special Education Programs (Phone: 202/732-1007); or Dan Bonner, Office of Elementary and Secondary Education (Phone: 202/401-0984).

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

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